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09/593,149	06/14/2000	Michael A. Vaudrey	10551/88	8117

7590 10/03/2003  
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Washington, DC 20005

EXAMINER

FAULK, DEVONA E

ART UNIT PAPER NUMBER

2644

DATE MAILED: 10/03/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/593,149

Applicant(s)

VAUDREY ET AL.

Examiner

Devona E. Faulk

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 and 14 is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Blum et al. (WO 99/08380).

Regarding claim 1, Blum discloses an improved listening enhancement system (See Figure 5) and method that separates the voice band audio from the background audio in an audio program which reads “a decoder for decoding an audio signal and separating said audio signal into a voice signal and a background signal”; a first variable gain amplifier (45) corresponding to one signal and a second variable gain amplifier (47) corresponding to another signal which read on a first end-user adjustable amplifier coupled to said voice signal and amplifying said voice signal and “a second end-user adjustable amplifier coupled to said background signal and amplifying said background signal”. The listener can adjust the volume of the background signal with a knob that controls the gain of the variable amplifier (page 10, line 3); a summing amplifier

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(48) to produce the final output, which reads on a summing amplifier coupled to outputs of said first and second end-user adjustable amplifiers and outputting a total audio signal, said total signal coupled an individual listening device”.

Regarding claim 7, Regarding claim 1, Blum discloses an improved listening enhancement system (See Figure 5) and method that separates the voice band audio from the background audio in an audio program. It is obvious that a receiving device or method is present, which reads on “a receiver for receiving a voice signal and a background signal of an audio”; a first variable gain amplifier (45) corresponding to one signal and a second variable gain amplifier (47) corresponding to another signal which read on a first end-user adjustable amplifier coupled to said voice signal and amplifying said voice signal and “a second end-user adjustable amplifier coupled to said background signal and amplifying said background signal”; a summing amplifier (48) to produce the final output, which reads on a summing amplifier coupled to outputs of said first and second end-user adjustable amplifiers and outputting a total audio signal, said total signal coupled an individual listening device”.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum et al. (WO 99/08380) in view of Franklin et al. (US Patent 5,794,187).

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Claims 2-5 each claim the integrated individual listening device and decoder according to claim 1 where said listening device is respectively a hearing aid, a head set, an assistive listening device, and a cochlear implant. As stated above apropos of claim 1 Blum anticipates all elements of claim 1. Therefore Blum anticipates all elements of claims 2-5 with the exception of the listening device being a hearing aid, a head set, an assistive listening device and a cochlear implant. Franklin discloses a signal to noise enhancement system that may be applied to several applications including but not limited to small wearable system like hearing aids, cochlear implants, and hearing assistive devices (column 15, lines 37-49). Hearing assistive devices obviously includes headphones. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Blum's system and Franklin's devices for the benefit of having products that better hearing enhancement capability thus providing the listener with much better sound quality.

Claim 6 claims the integrated individual listening device and decoder of claim 1 further comprising a third end-user adjustable amplifier couple between said summing amplifier and said individual listening device for adjusting said total signal. As stated above apropos of claim 1, Eggers meets all elements of that claim. Therefore Blum meets all elements of claim 6 with the exception of further comprising a third end-user adjustable amplifier. It was well known that adjustable amplifiers can be used for totaling sum signals and so one would have been motivated to use a third amplifier so as to allow the user to adjust the volume level to his or her preference. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to

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incorporate a third end-user amplifier in Blum's listening enhancement system for the benefit of having even better hearing enhancement capability.

6. Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum et al. (WO 99/08380) in view of Franklin et al. (US Patent 5,794,187).

Claims 8-11 each claim the voice-to-remaining audio (VRA) receiving device of claim 7 wherein said listening device is respectively a hearing aid, a head set, an assistive listening device, and a cochlear implant. As stated above apropos of claim 7, Blum anticipates all elements of that claim. Therefore Blum anticipates all elements of claims 8-11 with the exception of the listening device being a hearing aid, a head set, an assistive listening device and a cochlear implant. Franklin discloses a signal to noise enhancement system that may be applied to several applications including but not limited to small wearable system like hearing aids, cochlear implants, and hearing assistive devices (column 15, lines 37-49). Hearing assistive devices obviously includes headphones. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Blum's system and Franklin's devices to each of these devices for the benefit of having products that better hearing enhancement capability thus providing the listener with much better sound quality.

Claim 12 claims the voice-to-remaining audio (VRA) receiving device of claim 7 further comprising a third end-user adjustable amplifier couple between said summing amplifier and said individual listening device for adjusting said total signal. As stated above apropos of claim 1, Blum meets all elements of that claim. Therefore Blum meets all elements of claim 6 with the exception of further comprising a third end-user adjustable amplifier. It was well known that adjustable amplifiers can be used for totaling sum signals and so one would have been motivated

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to use a third amplifier so as to allow the user to adjust the volume level to his or her preference. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a third end-user amplifier in Blum's system for the benefit of having even better hearing enhancement capability.

### *Reasons for Allowance*

7. Claims 13-14 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 13, prior art Watkins et al. (US Patent 6,507,672 discloses a multimedia terminal (See Figure 7) comprising a decoder, a D/A converter and a transmitter. The D/A converter is connected to the decoder and speakers (transmitter). However, the prior art fails to disclose or make obvious a "decoder producing as its output, a digital preferred audio signal and a digital remaining signal". As such, the prior art fails to disclose or make obvious a set-top terminal for providing voice-to-remaining audio capability as claimed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

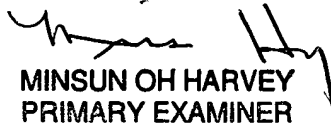
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devona E. Faulk whose telephone number is 703-305-4359. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

DF

  
MINSUN OH HARVEY  
PRIMARY EXAMINER